

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Patent Application No. 10/597,850

Confirmation No. 7034

Applicant: Uwe BERGER et al.

Filed: August 9, 2006

TC/AU: 3742

Examiner: Brian W. Jennison

Docket No.: 810119

Customer No.: 95683

APPELLANTS' APPEAL BRIEF

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In support of the appeal from the rejection dated March 3, 2011,
Appellants now submit their Brief.

Real Party In Interest

The patent application that is the subject of this appeal is assigned to Miele & Cie.
KG.

Related Appeals and Interferences

There are no appeals or interferences that are related to this appeal.

Status of Claims

A. Total Number of Claims in Application

There are 7 claims pending in application.

B. Current Status of Claims

1. Claims canceled: 1-5
2. Claims withdrawn from consideration but not canceled: None.
3. Claims pending: 6-12
4. Claims allowed: None
5. Claims rejected: 6-12

C. Claims On Appeal

The claims on appeal are claims 6-12.

Status of Amendments

No amendments were made in response to the non-final Office Action dated March 3, 2011. Previous amendments to the claims were made in the Responses dated August 9, 2006, March 23, 2009, August 28, 2009, December 30, 2009, and June 15, 2010, which amendments were subsequently entered. The claims in Appendix A include the claims as previously listed in the Amendment After Final Action dated June 15, 2010.

Summary of Claimed Subject Matter

Independent claim 6 is directed to a method for operating a cooking appliance having a cooking appliance control system and a door (e.g., 6 in the Figure) moveable between a closed position and an open position relative to a cooking chamber (e.g., 2 in the Figure, e.g., paragraphs [0019] and [0020]). The method includes automatically moving the door from the closed position to the open position using the cooking appliance control system in response to a first signal indicative of a completion of a cooking process based on at least one of the exhaustion of a cooking time and a sensor signal provided by at least one of a temperature

sensor and a humidity sensor disposed in the cooking chamber (e.g., paragraphs [0020], [0023] and [0026]). The door is automatically returned from the open position to the closed position in response to a second signal different from the first signal and indicative of a physical quantity including at least one of temperature and humidity in the cooking chamber falling below a predetermined threshold value stored in a memory of the cooking appliance control system (e.g., paragraphs [0023] and [0025]).

Independent claim 7 is directed to a cooking appliance including a cooking chamber (e.g., 2 in the Figure) bounded by a housing (e.g., 4 in the Figure), a door moveable between a closed position and a predetermined open position (e.g., 6 in the Figure), a cooking appliance control system with a memory and a sensor disposed in the cooking chamber (e.g., paragraphs [0019] and [0020]). A door opening device (e.g., 8 in the Figure) including a positioning motor and a rod (e.g., 8.1 and 8.2 in the Figure) is configured to be automatically reciprocated in a guide device (e.g., 8.3 in the Figure) by the cooking appliance control system via the positioning motor so as to automatically move the door from the closed position to the predetermined open position and from the predetermined open position to the closed position (e.g., paragraphs [0023] and [0025]). The cooking appliance control system is configured to actuate the positioning motor so as to automatically move the door from the closed position to the predetermined open position in response to a first signal indicative of a completion of a cooking process based on at least one of the exhaustion of a cooking time and the output signal from the sensor (e.g., paragraphs [0020] and [0023]). The cooking appliance control system also being configured to actuate the positioning motor so as to automatically return the door to the closed position when a second signal is indicative of a physical quantity including at least one of temperature and humidity in the cooking chamber has fallen below a predetermined threshold value stored in the memory, the second signal being difference from the first signal (e.g., paragraphs [0023] and [0025]).

Grounds of Rejection to be reviewed on Appeal

Whether claims 6-7 and 9-12 are unpatentable under 35 U.S.C. § 103(a) over a combination of U.S. Patent No. 2,907,859 to Walkoe ("Walkoe") and U.S. Publication No. 2004/0027248 to Lile ("Lile"). Whether claim 8 is unpatentable under 35 U.S.C. § 103(a) over a combination of Walkoe, Lile, and U.S. Publication No. 2003/0010221 to Berger et al. ("Berger").

Argument

In accordance with M.P.E.P. 1205.02, each ground of rejection is treated under a separate heading.

Rejection of Claims 6, 7 and 9-12 Under 35 USC 103

Claims 6, 7 and 9-12 were rejected under 35 U.S.C. § 103(a) over a combination of U.S. Patent No. 2,907,859 to Walkoe ("Walkoe") and U.S. Publication No. 2004/0027248 to Lile ("Lile").

Cited References

WALKOE – Walkoe describes an oven with an oven door opener mechanism that includes an electrically heated ram actuator unit 42 and opens the oven door by extending a ram 47 in accordance with a timer or a thermostat. See Walkoe, column 2, lines 1-15, and column 4, lines 67-70. Walkoe includes a circuit with a meat probe 10 and a bimetallic strip 24. When the meat probe 10 reaches a desired temperature, the bimetallic strip 24 closes the circuit resulting in the extension of ram 47 and opening of oven door 7. See Walkoe, column 7, line 70 to column 8, line 32.

LILE – Lile describes cooking appliance with a door 3 and a motor control circuit 204 that instructs the door to open and close. See Lile, paragraph [0021].

Non-obviousness of claim 6 in view of Walkoe and Lile

Independent claim 6 recites a method including automatically moving the door of a cooking appliance from a closed position to an open position in response to a first signal indicative of the completion of a cooking process and "automatically returning the door from the open position to the closed position in response to a second signal indicative of a physical quantity including at least one of temperature and humidity in the cooking chamber falling below a predetermined threshold value stored in a memory of the cooking appliance control system, wherein the first signal and the second signal are different."

It is respectfully submitted that a method including automatically returning the door of an appliance from the open position to the closed position in response to a signal indicative of a physical quantity including at least one of temperature and humidity in the cooking

chamber falls below a predetermined threshold value, as required by independent claim 6, would not have been obvious in view of any combination of Walkoe and Lile. Walkoe and Lile, both alone and in combination, fail to teach or suggest returning a door to a closed position in response to a signal indicative of a physical quantity. In contrast, Walkoe merely describes a circuit with a meat probe 10 and a bimetallic strip 24. When the meat probe 10 reaches a desired temperature, the bimetallic strip 24 closes the circuit resulting in the extension of ram 47, which opens the oven door 7. See Walkoe, column 7, line 70 to column 8, line 32. Walkoe does not disclose or suggest automatically closing the oven door at all, and particularly fails to disclose automatically closing the door in response to a physical quantity falling below a predetermined threshold. With respect to Lile, that reference merely describes a cooking appliance with a door 3 and a motor control circuit 204 that instructs the door to open and close based on a user turning on the appliance or based on a direct user input. See Lile, paragraphs [0021] and [0029]. Lile does not teach or suggest opening or closing the door in response to a signal indicative of a physical quantity, as required by claim 6.

Moreover, Walkoe teaches away from automatically closing the door. Specifically, Walkoe teaches that "suitable means are provided to hold the door in the partially open position until its release by the cook." See Walkoe, column 2, lines 16-18. Walkoe further explains that the door is held open by a projection 38 mounted cam follower 40 after it has been opened. See Walkoe, column 4, lines 57-65 as well as Figs. 2, 3, 6 and 7. Thus, Walkoe, in which the door is held open until release by the cook, would motivate a person of ordinary skill in the art away from the features of the method recited in claim 6, which requires automatically closing the door in response to a physical quantity falling below a predetermined threshold.

Because neither Walkoe nor Lile teach or suggest automatically closing the door in response to a signal indicative of a physical quantity falling below a predetermined threshold value, and because Walkoe teaches away from closing the door until the door is released by a cook, it is respectfully submitted that no combination of Walkoe and Lile, to the extent proper, could render claim 6 obvious.

With regard to the contention in the Office Action dated March 3, 2011, that the appliance of Walkoe is capable of closing the door when the temperature falls below a value (see page 2, last line to page 3, line 4 of the Office Action), it is respectfully submitted that

the potential ability of the appliance described in Walkoe to close the door does not render a method that includes a step of closing the door obvious, particularly since the method described in Walkoe includes holding the door open until released by the cook. (Further, as explained in greater detail below with respect to claim 7, the retraction of the ram 47, which actuates the door, is independent of any condition within the cooking chamber.)

With regard to the contention in the Office Action dated March 3, 2011, that "providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art" (see Office Action, page 6, lines 15-16), it is respectfully submitted that Walkoe fails to disclose the recited activity, either manually or automatically. Nowhere does Walkoe teach or suggest closing the door, either automatically or manually, in response to a signal indicative of a physical quantity including at least one of temperature and humidity in the cooking chamber falling below a predetermined threshold value, as required by claim 6. Accordingly, the method recited in claim 6 is not merely the replacement of a manual activity.

For the foregoing reasons, it is respectfully submitted that claim 6 could not be rendered obvious by any combination, to the extent proper, of Walkoe and Lile. Reversal of the rejection of claim 6 under 35 U.S.C. § 103 based on Walkoe and Lile is respectfully requested.

Non-obviousness of claims, 7 and 9-12 in view of Walkoe and Lile

Independent claim 7 recites a cooking appliance including a cooking appliance control system configured to actuate a positioning motor to open a door in response to a first signal and "to actuate the positioning motor so as to automatically return the door to the closed position when a second signal is indicative of a physical quantity including at least one of temperature and humidity in the cooking chamber has fallen below a predetermined threshold value stored in the memory, wherein the first signal and the second signal are different."

It is respectfully submitted that a cooking appliance including a cooking appliance control system configured to return the door of an appliance from the open position to the closed position in response to a signal indicative of a physical quantity including at least one of temperature and humidity in the cooking chamber falling below a predetermined threshold value, as required by independent claim 7, would not have been obvious in view of any

combination of Walkoe and Lile. Walkoe and Lile, both alone and in combination, fail to teach or suggest a control system configured to return a door to a closed position in response to a signal indicative of a physical quantity. In contrast, as explained above, Walkoe merely describes a circuit with a meat probe 10 and a bimetallic strip 24. When the meat probe 10 reaches a desired temperature, the bimetallic strip 24 closes the circuit resulting in the extension of ram 47, which opens the oven door 7. See Walkoe, column 7, line 70 to column 8, line 32. Walkoe does not disclose or suggest any control system configured to close the oven door in response to a signal indicative of a physical quantity falling below a predetermined threshold. With respect to Lile, that reference merely describes a cooking appliance with a door 3 and a motor control circuit 204 that instructs the door to open and close based on a user turning on the appliance or based on a direct user input. See Lile, paragraphs [0021] and [0029]. Lile does not teach or suggest that the control circuit 204 is configured to open or close the door in response to any signal indicative of a physical quantity inside a cooking chamber, as required by claim 7.

Moreover, Walkoe teaches away from a system that is configured to automatically close the door. Walkoe teaches a configuration that is specifically designed to hold the door in an open position after it has been opened. In particular, Walkoe describes that "suitable means are provided to hold the door in the partially open position until its release by the cook." See Walkoe, column 2, lines 16-18. Walkoe further explains that the door is held open by a projection 38 mounted cam follower 40 after it has been opened. See Walkoe, column 4, lines 57-65 as well as Figs. 2, 3, 6 and 7. Thus, Walkoe, in which the door is held open until release by the cook, would motivate a person of ordinary skill in the art away from the configuration of the control system recited in claim 7, which is configured to automatically close the door in response to a signal indicative of a physical quantity falling below a predetermined threshold.

Because neither Walkoe nor Lile teach or suggest automatically a control system configured to close the door in response to a signal indicative of a physical quantity within the cooking chamber falling below a predetermined threshold value, and because Walkoe teaches away from closing the door until the door is released by a cook, it is respectfully submitted that no combination of Walkoe and Lile, to the extent proper, could render claim 7 obvious.

With regard to the contention in the Office Action dated March 3, 2011, that the appliance of Walkoe is capable of closing the door when the temperature in a memory falls below a value (see page 2, last line to page 3, line 4 of the Office Action), as discussed above, such a modification would not have been obvious because Walkoe specifically teaches against closing the door. Moreover, it is respectfully submitted that, after the ram 147 of Walkoe has extended to open the door, the subsequent retraction of the ram 147 is actually not affected by the temperature in the oven. Walkoe describes that the bimetallic strip trips the circuit which actuates the ram by energizing an expanding heating element that causes the ram to extend so as to open the door. However, extension of the ram 147 also actuates a switch 70 which opens the circuit to the heating element. See Walkoe, column 6, line 71 to column 7, line 4, and column 7, lines 20-33. Thus, the heating element that extends the ram is only energized for the amount of time required to extend the ram, and the ram is subsequently immediately allowed to retract, since the door is held open by the projection 38 and follower 40, as described above. Accordingly, even if the mechanism that holds the door open were removed from Walkoe, the arrangement described in Walkoe would not be configured to return the door to a closed position in response to a signal indicative of a physical quantity in the cooking chamber. Instead, the door would retract nearly immediately based only on the switch 70 breaking the circuit to the heating element that extends the ram.

With regard to the contention in the Office Action dated March 3, 2011, that "providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art" (see Office Action, page 6, lines 15-16), it is respectfully submitted that Walkoe fails to disclose the recited activity, either manually or automatically. Nowhere does Walkoe teach or suggest a control system configured to close the door, either automatically or manually, in response to a signal indicative of a physical quantity including at least one of temperature and humidity in the cooking chamber falling below a predetermined threshold value, as required by claim 7. Accordingly, the method recited in claim 6 is not merely the replacement of a manual activity.

For the foregoing reasons, it is respectfully submitted that claim 7 could not be rendered obvious by any combination, to the extent proper, of Walkoe and Lile. Claims 9-12 depend from claim 7 and are patentable over a combination of Walkoe and Lile for at least the same reasons as claim 7 is.

Reversal of the rejection of claims 7 and 9-12 under 35 U.S.C. § 103 based on Walkoe and Lile is respectfully requested.

Rejection of Claim 8 Under 35 USC 103

Claim 8 was rejected under 35 U.S.C. § 103(a) over a combination of Walkoe, Lile, and U.S. Publication No. 2003/0010221 to Berger et al. ("Berger").

Cited References

Walkoe and Lile are described above with respect to the rejection of claims 6, 7 and 9-12.

BERGER – Berger describes a steam cooking apparatus. See Berger, Abstract.

Non-obviousness of claim 8 in view of Walkoe, Lile and Berger

Claim 8 depends from claim 7, which requires a control system configured to "to actuate the positioning motor so as to automatically return the door to the closed position when a second signal is indicative of a physical quantity including at least one of temperature and humidity in the cooking chamber has fallen below a predetermined threshold value stored in the memory, wherein the first signal and the second signal are different."

As set forth above with respect to the rejection of claims 7 and 9-12 under 35 U.S.C. § 103, the above recited feature of claim 7 would not have been obvious in view of any combination of Walkoe and Lile. Berger does not teach or suggest the features of claim 7 that are missing from Walkoe and Lile. Nor does Berger provide any suggestion that would motivate a person of ordinary skill in the art to modify a combination of Walkoe and Lile to include the features that are missing from claim 7. In contrast, Berger merely describes a steam cooking apparatus. See Berger, Abstract.

Because it would not have been obvious to provide a cooking appliance including a control system configured to actuate a positioning motor so as to automatically return a door to a closed position when a signal is indicative of a physical quantity falling below a threshold value, as required by independent claim 7, based on the cited references, it is respectfully submitted that any combination of Walkoe, Lile and Berger, to the extent proper,

could not render claim 7 obvious. Claim 8 depends from claim 7 and is patentable over a combination of Walkoe, Lile and Berger for at least the same reasons as claim 7 is.

Reversal of the rejection of claim 8 under 35 U.S.C. § 103 based on Walkoe, Lile and Berger is respectfully requested.

CONCLUSION

For the foregoing reasons it is respectfully submitted that the rejection of claims 6-12 should be reversed. Appellants respectfully request that the rejections under 35 U.S.C. § 103 be withdrawn and the application passed to allowance.

The Commissioner is hereby authorized to charge any unpaid fees deemed required in connection with this submission, including any filing or application processing fees required under 37 C.F.R. § 1.16 or 1.17, or to credit any overpayment to Deposit Account No. 12-1216.

Respectfully submitted,



Erik R. Swanson, Reg. No. 40,833
LEYDIG, VOIT & MAYER, LTD.
Two Prudential Plaza
180 North Stetson Ave., Suite 4900
Chicago, Illinois 60601-6731
(312) 616-5600 (telephone)
(312) 616-5700 (facsimile)

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*Claims Appendix***Claims 1-5 (Cancelled)**

Claim 6 (Previously Presented): A method for operating a cooking appliance having a cooking appliance control system and a door moveable between a closed position and an open position relative to a cooking chamber, the method comprising:

automatically moving the door from the closed position to the open position using the cooking appliance control system in response to a first signal indicative of a completion of a cooking process based on at least one of the exhaustion of a cooking time and a sensor signal provided by at least one of a temperature sensor and a humidity sensor disposed in the cooking chamber; and

automatically returning the door from the open position to the closed position in response to a second signal indicative of a physical quantity including at least one of temperature and humidity in the cooking chamber falling below a predetermined threshold value stored in a memory of the cooking appliance control system,

wherein the first signal and the second signal are different.

Claim 7 (Previously Presented): A cooking appliance comprising:

a cooking chamber bounded by a housing;

a door moveable between a closed position and a predetermined open position;

a cooking appliance control system having a memory;

a sensor disposed in the cooking chamber configured to send an output signal to the cooking appliance control system;

a guide device; and

a door opening device including a positioning motor and a rod configured to be automatically reciprocated in the guide device by the cooking appliance control system via the positioning motor so as to automatically move the door from the closed position to the predetermined open position and from the predetermined open position to the closed position, the cooking appliance control system configured to actuate the positioning motor so as to automatically move the door from the closed position to the predetermined open position in response to a first signal indicative of a completion of a cooking process based on at least one of the exhaustion of a cooking time and the output signal from the sensor and to actuate the positioning motor so as to automatically return the door to the closed position when a second

signal is indicative of a physical quantity including at least one of temperature and humidity in the cooking chamber has fallen below a predetermined threshold value stored in the memory, wherein the first signal and the second signal are different.

Claim 8 (previously presented): The cooking appliance as recited in claim 7, wherein the cooking appliance is a steam cooking appliance.

Claim 9 (previously presented): The cooking appliance as recited in claim 7, wherein the positioning motor includes an electrically heatable shape-memory element.

Claim 10 (previously presented): The cooking appliance as recited in Claim 7, further comprising a return element disposed between the door and the housing, wherein the return element is in force-transmitting connection with the door and the housing and is configured to aid the return of the door from the predetermined open position to the closed position.

Claim 11 (previously presented): The cooking appliance as recited claim 7, further comprising at least one of a spring device and a damping device mounted on the rod and configured to retard a movement of the door from the closed position to the predetermined open position.

Claim 12 (previously presented): The cooking appliance as recited claim 7, further comprising at least one of a spring device and a damping device mounted on the rod and configured to retard a movement of the door from the predetermined open position to the closed position.

Evidence Appendix

(None)

Related Proceedings Appendix

(None)